In the Claims:

1. (Currently Amended)   A process for cyclic, interactive image analysis, ~~comprising~~

~~the steps of:~~

~~(a)   selecting by a user of image regions of interest in an image having image~~

~~points,~~

~~(b)   performing preprogrammed transformations on the image at one of all~~

~~image points and at a selection of image points,~~

~~(c)   normalizing individual transformation results,~~

~~(d)   dividing a whole normalized transformation space into classes with the~~

~~result of a classification in the transformation space with the aid of~~

~~separation rules that are derived from the transformation result values in~~

~~said image regions selected by the user,~~

~~(e)   referencing to individual image points the classification obtained in the~~

~~transformation space, and~~

~~(f)   presenting the thus classified image in said image space~~

of an image having individual image points, said image defining an image space,

comprising the steps of:

(a)   selecting by a user of image regions of interest in said image,

(b)   performing preprogrammed transformations on said image at one of all

individual image points and a selection of individual image points, said

performing generating transformation result values defining a

transformation space,

(c)   normalizing said transformation result values which provides a normalized

transformation space,

(d)   dividing said normalized transformation space into classes with the aid of separation rules that are derived from normalized transformation result values in said image regions selected by the user, said dividing resulting in a classification,

(e)   allocating the classification obtained in said normalized transformation space to said individual image points resulting in a classified image in said image space, and

(f)   presenting said classified image in said image space.

2. (Original)   The process according to claim 1, wherein said preprogrammed transformations include formation of a mean of at least one of color value or gray-scale value and formation of variance of the color value or gray-scale value in an image point neighborhood.

3. (Original)   The process according to claim 1, wherein said preprogrammed transformations include a Radon transformation for effective representation of lines and edges.

4. (Original)   The process according to claim 1, wherein division of said normalized transformation space takes place such that regions in the transformation space are identified in which normalized values of each of the performed transformations correspond to normalized values of the same transformation in said image regions selected by the user.

5. (Original)   The process according to claim 4, wherein a sigmoid function is used for normalization of said normalized values.

6. (Original)   The process according to claim 1, wherein the process steps (a)-(f) are repeatedly performed on the same image for one of hierarchical refining or generalization of said classification.

7. (Original)   The process according to claim 1, wherein the process steps (b)-(f) are repeatedly performed on the same image with at least one of different transformations and parameters of said transformations.

8. (Currently Amended)   The process according to claim 1, ~~wherein sequences of transformations, normalizations and classifications are determined during the interaction are stored~~ wherein sequences of transformations, normalizations and classifications are interactively determined and are stored on an storage medium.

9. (Currently Amended)   The process according to claim 8, ~~wherein said sequences determined during the interaction are subsequently applied to other images~~ wherein said interactively determined sequences are subsequently applied to other images.

10. (Currently Amended)   The process according to claim 1, ~~wherein additional properties of obtained classifications are calculated, taking into account corresponding classification properties in image regions selected by the user~~ wherein additional properties of said classification are calculated considering classification properties in image regions selected by the user.

11. (Currently Amended)   The process according to claim 10, wherein said additional properties are color values, image brightness, and at least one of variance and class form.

12. (Original) A computer system suitable for performance of a process according to

claim 1, having devices for interactive input and selection of image regions.

13. (Currently Amended)   A computer program that is ~~loadable into memory~~ stored in a computer readable medium/memory of a digital computer and having a software code for performance of a process with the steps according to claim 1 when said software code runs on said computer.

14. (Currently Amended) A computer program that is ~~loadable into memory~~ stored in a computer readable medium/memory of a digital computer, having a software code that enables said computer with the computer program loaded into said memory to perform a process with the steps according to claim 1, wherein said software code runs on said computer.

15. (Original) The process according to claim 2, wherein said preprogrammed transformations include a Radon transformation for effective representation of lines and edges.

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